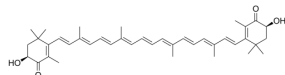


## Certificate of Analysis

**Product Name:** Astaxanthin  
**Cat. No.:** CS-0020413  
**CAS No.:** 472-61-7  
**Batch No.:** 79958  
**Chemical Name:**  $\beta,\beta$ -Carotene-4,4'-dione, 3,3'-dihydroxy-, (3S,3'S)-

### PHYSICAL AND CHEMICAL PROPERTIES

**Molecular Formula:** C<sub>40</sub>H<sub>52</sub>O<sub>4</sub>  
**Molecular Weight:** 596.84  
**Storage:** -20°C, protect from light, stored under nitrogen  
**Chemical Structure:**



### ANALYTICAL DATA

**Appearance:** Dark purple to black (Solid)  
**<sup>1</sup>H NMR Spectrum:** Consistent with structure  
**Purity (NMR):**  $\geq 98.0\%$   
**Conclusion:** The product has been tested and complies with the given specifications.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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